Tradition runs deep in golf where rules and dress have taken a long journey around the world from their formal origins at St. Andrews, Scotland, in the middle of the eighteenth century. It is therefore no surprise to those of us involved in the sports industry to observe that golf has been slow to change, particularly in the categories of apparel and footwear.

Profiling golf shoes

By Mel Cheskin

In the sport of golf the idea is to dress casually, as if going for a drive in the country or a stroll in the park. However, behind the polo shirt, the khaki shorts, the sunglasses and the brogue shoes, lies an ever-evolving world of high-tech materials, visible ball finders and biomechanically correct equipment. Such is the state of the art in golfing footwear.

While in most sports footwear has taken on a completely ‘space-age’ appearance, golf shoes have advanced cautiously into the biomechanical era and simultaneously remained true to their original fashion roots. Is there another sport where one shoe manufacturer founded in 1870 as Stuburt’s from the UK would challenge another, founded in 1857 as Field & Flint and Brockton Footwear (now FootJoy in the USA) as to who currently makes the finest leather welted golf shoes? Even Hi-Tec, despite its brand name and dedication to the latest in waterproofing materials, fast-change cleat systems and biomechanically enhanced designs, still clings to its Classics range of plain toe-cap designs with a traditional looking heel and sole profile.

Not only are the major brands reluctant to shed the leather sole and step heel look, but there are still many brands worldwide producing exclusive golf shoes with high-end fashion styling using exotic leathers. One such company, appropriately named Royal Albartross (not Albatross), is designed in England and made Italy. Made by artisans using primarily leather soles and traditional dress shoe construction, Royal Albartross clings to the saddle and blucher styling while incorporating a waterproof lining and Trisport’s ‘Fast Twist Cleat System’ into their traditional footwear. Golfstream Shoes, located on Florida’s west coast, is another fashion-based company with golf shoes advertised for use ‘off and on the golf course.’ Although Golfstream
have replaceable spike models and use waterproof leathers, the company’s marketing focus is on the women’s fashion market with semi-pointed toecaps, bicycle closure systems and patent leather trims.

**Catering for all ages**

One of the wonders of modern golf is the vast divergence of ages among the active participants. At the local driving range it is common to see teenagers and senior citizens teeing off side-by-side, each equally determined to better their game. Take a look at their shoes and you will also observe a vast array of traditional dress shoe styles alongside flashy running shoe looks. Probably the most popular selling models from companies such as FootJoy, Nike, adidas, Etonic and ECCO are still a combination of biomechanically performance-enhancing features hidden inside a ‘Gatsby’ wing-tip. In their struggle to satisfy modernity, golf shoe brands have followed the advances of the sport shoe industry both overtly, with court and running shoe styling, and covertly by hiding biomechanical performance features in traditional fashion shoe looks.

The most significant technical improvement in golf shoes has come in the form of soling materials and design. We have witnessed an evolution from the traditional stacked leather heel-and-sole construction to identical copies of this look in both vulcanized and extruded rubber, EVA, polyurethane, and TPU (Thermoplastic Urethane) materials. Not only has this allowed manufacturers to offer waterproof soling but, with a mouldable component, it has brought golf shoes into the twenty-first century by adding a side-wall profile. This modern day look can be achieved either by directly moulding the soling material onto the upper or simply cementing a unit sole to the lasted upper in a ‘shell’ form.

Adding a profile firstly seals the sole and upper to help waterproof the shoe, which is important in golf, and secondly, creates more profile ‘canvas’ for designer innovation. Moulded soling materials have facilitated the creation of the ‘spikeless’ sole for golf, which again, contrary to all other sports innovations, became popular amongst the masses before being accepted at the elite levels of the sport. Modern golf shoes are now made with either a moulded sole or a replaceable plastic ‘spike’ version (or combination of both). Ironically, replaceable metal spikes are still available and preferred by most professional golfers but are only allowed to be worn at courses during tournaments sanctioned by the Professional Golfers Association of America (USPGA).

**Keeping ground keepers and players happy**

In an attempt to keep both groundkeepers and players happy golf-spike manufacturers have finally settled on a soft durometer TPU, non-clogging spike that is both green friendly and offers excellent grip in the rough. Led by MacNeill Engineering Worldwide, the Champ replaceable spike brand now offers a variety of Q-Lok and Tri-Lok disk systems, including the Stinger ‘C’ visible dual colour spike to indicate wear and the Lady Stinger, which is 15% smaller to fit smaller traction elements. The latest systems are all quick lock and release half turn designs for...
easy replacement. As tradition dictates, Champ still offer metal spikes even though they are all but banned on every golf course in the world. Another product - 'Street Caps,' allow the golfer to replace protruding golf spikes with a flat cap for street shoe use.

Influenced by the dawning of the biomechanical running shoe era, Etonic headquartered in Brockton, Massachusetts, was the first company to bring performance-enhancing features into golf shoes in the 1970s. By changing the standard screw-in spike placement pattern and adding plastic appendages to the outsole, it was proven both on the driving range and through kinematics studies that players could hit the ball from a more stable base and improve driving distance in the biomechanically tested shoes. However, true to golf’s traditions, the ‘strange-looking’ outsoles were slow to catch on with players, subjected to the rigours of rulings from the sport’s governing bodies and ignored by other shoe manufactures. It was not until adidas entered the golf market in the mid 1980s followed by Nike in the 1990s that shoe manufacturers started to apply biomechanical design features, such as torsion shanks, flanges and flex-path grooves to golf shoe outsoles. All major brands today use modern plastics and design features in their golf shoe designs, but not so in the uppers.

One cannot easily add advance design features into a shoe without changing the appearance. Hence, the divergence of styling in golf shoe uppers to incorporate both modern sport and traditional dress shoe looks, resulting in a subtle blending of the two.

**Waterproof needs**

Waterproofing is another ‘hidden’ technology that has become essential in golf shoes - regardless of the shoe’s internal construction and external styling. Even golf shoes have come a long way from the pre-GoreTex days of oil and silicone tanned leather uppers and direct vulcanised soling. Permeable waterproof membranes, although still used prolifically in the golf shoe industry, have evolved from multiple-layered, moisture management inside liners into lighter-weight single films. Unlike microporous films and coatings such as PTFE/Teflon that contain small pores or capillaries that permit vapour to escape, Omniflex is a single, solid layer film that is both monolithic and hydrophilic. The hydrophilic nature of the Omniflex single layer films makes them breathable, as they actively attract water vapour, which is absorbed through the inner face of the membrane. The moisture is then ‘transported’ through the chemical matrix of the solid film to the outside surface via solid-state diffusion, where it evaporates upon exposure to the atmosphere.
Another recent development in waterproofing comes in the form of a liquid repellency system from the UK-based company P2i. To incorporate its plasma-bonding, nanocoating ion-mask process into a pair of nineteenth century welted brogue golf shoes will likely be the height of technology contradiction. Without changing the construction or appearance, the shoe can simply be placed in a sealed vacuum chamber, removing all the air and injecting a chemical solution (fluorinated acrylate monomer) at room temperature. This chemical evaporates into a gas that penetrates every fibre and composition creating a plasma that allows it to attach to the surface of the shoe-making the product completely waterproof at the same time as allowing the materials to retain their breathable qualities. The P2i process is claimed to offer better waterproofing than a PTFE membrane construction and more breathability than a single layer film or coating. Also, unlike membrane technology, plasma waterproofing treatment does not require any special shoe construction or design modifications.

Working in the present is something new for golf shoe designers, however, rarely is there a product made today that does not have some type of recyclable component or story behind it. Whether it is being ‘green’, recycled, biodegradable or earth friendly the world is definitely changing. It’s more of a reality than a fad that society is becoming more environmentally conscious. Not to be left behind by other categories in the increasingly ‘Enviro conscious’ footwear industry, golf already has its own version of ‘green friendly’ shoes. Introduced by Hi-Tec in 2008 as the first earth friendly golf shoe, “The Enviro” range has been created using organic vegetable-tanned chrome-free leathers, outsoles made from rice husks and latex rubber and a recycled sockliner. Hi-Tec is presently working with their spike supplier to develop a biodegradable spike and receptacle that will make the shoe 100% environmentally friendly.

Finally, we have come full-circle in golf shoes despite the resistance of tradition, the subtle introduction of new materials, technologies and designs have allowed golf shoes to join the biomechanical performance era, but still maintain their own character on the links and courses of the old world.